

**FSS FEEDING NETWORK FOR A MULTI-BAND  
COMPACT HORN**

**ABSTRACT OF THE INVENTION**

A feed structure (105) for a horn antenna (100). The feed structure can include a first waveguide (110) and a second waveguide (115) having a first portion at least partially disposed within the first waveguide. The second waveguide also can include a second portion intersecting a first wall (240) of the first waveguide. The first wall can include a first frequency selective surface (244) at an intersection (280) of the first wall and the second portion of the second waveguide. The first waveguide can be operatively coupled to a first horn section (130) and the second portion can be operatively coupled to a second horn section (135).